REMARKS/ARGUMENTS

Claims 1-7, 10, 11, 15-17, 19 and 21-22 are active in this application.

Claim 21 remains withdrawn.

Claims 1 and 15 have been amended to correct simple typographical errors. Thus, the rejection under 112 first paragraph is no longer applicable.

No new matter is added.

Claim 1 of the application is

> A process for chromate-free outer coating of a pipe with a fluidized bed and a pulverulent fusible polymer as a coating material, the process comprising
>
> cleaning the pipe with a pretreatment system,
>
> applying a primer to the pipe,
>
> baking the primer with an induction coil at a frequency of from 2,000 to 10,000 Hz,
>
> coating the pipe with a coating material in a fluidized-bed coating basin comprising an induction coil incorporated in said fluidized-bed coating basin, an air flush system positioned above the pipe to eliminate powder accumulation and one or more metal flow-guide panels positioned below the pipe to eliminate powder deficit and resultant pores on the underside of the pipe,
>
> wherein the coating material comprising one or more pulverulent fusible polymers to form a coated pipe having a polymer coating,
>
> melting the polymer coating by heating with an induction coil at a frequency of from 2,000 to 10,000 Hz to form a pipe having a melt coating, and cooling to form a pipe having a hardened coating, and
>
> wherein the pipe is not treated with chromate.

As described in the application, the invention provides a process which permits the continuous chromium-free coating of pipe. In this process, the coating is achieved by what is referred to as a "whirl sintering tank" that permits the avoidance of powder accumulations above the pipe and shortage of powder underneath the pipe in the tank.

As discussed in the specification on page 3, lines 15-20, a fluidized-bed coating basin including an air-flush system above the pipe for eliminating powder accumulations and metal flow-guide panels below the pipe for eliminating powder deficits and any resultant pores on the underside of the pipe. Pipes having uniform layer thickness, both radially and axially, can be reliably produced when the fluidized-bed coating basin contains such devices.

The claimed process, which utilizes such a fluidized bed apparatus coupled with the chromate free coating and the frequency of induction coil is not described nor suggested by the art cited in the Office Action. Further details follows.

Applicants thank the Examiner for withdrawing the rejection based on Church, Winkle and Creps.

The rejection based on a combination of Questi, Winkle or Creps in view of Facer and Kamimura has been maintained for fundamentally the same reasons as outlined in the previous Official Action. Briefly, Questi describes coating (with optional chromate treatment) which also cites to the Kamimura patent which the Examiner has taken the view describes providing flow from above and below the fluidized bed base (see the first paragraph on page 5 of the Official Action). The Examiner also relies on the Facer description which provides fans and manifolds, which according to the Examiner would inherently achieve a "whirl sintering tank" (see page 7 of the Official Action). Moreover, the Examiner has taken the position that there are no specific details as to what is provided below the pipe and therefore the systems in these prior art documents are the same as the whirl sintering concept

in the present claims (see page 8 of the Official Action). The Creps and Winkle patents are primarily cited for the induction frequencies used in the process.

Applicants disagree as Winkle describes an electrostatic method; in contrast, we achieve application by whirl sintering whereby Fig. 2 describes the arrangement of spray guns; the internals of the claimed method below the pipe are used to adjust the flow velocity by simple variation of gaps, and those above the pipe are air jets for fluidization. Therefore, this is not relevant to the presence of a whirl sintering tank as set forth in the claims here.

Fig. 4 in Kamimura et al. above the pipe is an *exhaust pipe, No. 29* (thus extraction). Tn contrast, the method of employing a whirl sintering tank uses air jets installed above the pipe for selective fluidization in the upper part of the pipe. This is different from Kamimura et al. because in the present method the pipe is in full contact with the coating powder, specifically in the whirl sintering tank. In the method described Kamimura et al., coating medium is directed at the pipe by helicoidal radially disposed jets.

Internals above and below the pipe for the purpose of influencing the natural flow direction in a whirl sintering tank (from bottom to top) in such a way as to avoid the otherwise traditional disadvantages (top: scoop effect; bottom: flow voids/shadows) and to achieve a homogeneous distribution of film thickness are lacking in Kamimura et al.

Thus, if one used the Kamimura's teachings in the Questi process, one would choose between air spray applications **or** fluidized beds and in doing so would not achieve a "whirl-sintering tank" because, as noted, the fluidized bed is achieved only by upward air flow.

Withdrawal of this rejection is requested.

Applicants also request a Notice of Allowance for all pending claims.

Respectfully submitted,

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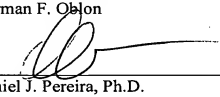

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